APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,399	10/25/2000	Michel Casabona	DE9-1999-0075US1	3668

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EXAMINER
VU, TUAN A

ART UNIT	PAPER NUMBER
2124	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.		Applicant(s)	
Office Action Summary		09/696,399		CASABONA ET AL.	
		Examiner		**Art Unit**	
		Tuan A Vu		2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2003*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the Applicant's response filed 12/15/2003.

As indicated in Applicant's response, claims 1-13 have been amended; and claims 14-16 added.

Claims 1-16 are pending in the office action.

Specification

2.   The part amended for the disclosure is objected to because of the following informalities:

there is a redundant element "cave", before "case" (pg. 26, line 11).

        Appropriate correction is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 1-2, 4-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoyle,

USPN: 6,141,010 (hereinafter Hoyle), in view of Nguyen et al., USPN: 6,202,070 (hereinafter

Nguyen).

        As per claim 1, Hoyle discloses a method for maintaining software products

implemented in a plurality of files in client computer systems (e.g. Fig. 3) located decentralized

relative to at least one central software (e.g. *ADM Server, Ad servers* – Fig. 3) maintenance

institution wherein the client systems are connected with said maintenance institution via a

network, such method comprising:

providing product information in the network system for making the product information available for said client systems (e.g. *demographic information* - col. 8, lines 53-60; *updated blueprint* – col. 13, lines 48-63); and

performing a software maintenance action for the product (e.g *banner advertising* -- col. 8, lines 36-46) from the client site by downloading the data required for said maintenance from a set of repositories (e.g. *database 44, Ad Servers 50* – Fig. 3; col. 8, lines 47-52; col. 16, lines 37-52 - Note: accessing more than one ad servers to retrieve ad banners is equivalent to more than one repositories of banners; Fig. 13; col. 14, lines 17-26).

But Hoyle does not specify that downloading is from a sequence of repositories, wherein said sequence of repositories includes a top-level repository storing a set of files for the product and a local-level repository storing a first subset of files for the product, such subset being specific for a given client system. Hoyle, however, discloses customizing according to the client local setting (e.g. col. 8, lines 55-63; col. 16, lines 9-23); downloading from a set of repositories (e.g. Fig. 3, 7 – Note: sites being chosen for download belong to a set to which user's specifications are applied) as well as avoiding duplication with unique identifiers (e.g. col. 20, lines 47-66; col. 5, lines 26-34). The diversifying of places or sites for storing software according to a given specificity or customization criteria was a well-known concept at the time the invention was made. Such evidence of using specific sites or servers to store target-based software or files is taught in Nguyen's following method. Nguyen, in a method to distribute software to customize a bill of material for target machines with database management to eliminate unwanted duplicates (*DBM* non-duplication) analogous to the teaching as shown above by Hoyle's download/upgrade method, discloses the distribution of software in sequence

from master database (*PRISM database*), replication databases and local databases with the later

operable for effecting the final software customized installation in the target machines and

DBMs transaction operable on unique identifiers (e.g. Fig. 1, 9; col. 4, line 65 to col. 5, line 8;

col. 5, line 39 to col. 6; *software engineering group, local server database, isolated database -*

line 37; col. 7, lines 22-60; col. 13, lines 5-27; Fig. 13, 14), i.e. teaching of a first set of files from

a master database being propagated to a intermediate replication database and finally stored in

the manufacturing site databases for a target specific (based on a *BOM*, i.e. only a subset of files

are used – see col. 40, lines 55-61) installation onto a client system. It would have been obvious

for one of ordinary skill in the art at the time the invention was made to implement the set of

repositories as mentioned by Hoyle into a sequence of repositories (DBMs) in a global and local

hierarchy basis as suggested by Nguyen, because this would enable propagation of files from on

higher level storage or global software list down to a more local or machine specific list while

using relational database technology for ensuring elimination of unwanted duplicate files that

might be left by various level of usage; and also would avert overhead resources that might be

time-delaying or be required in the course of passing files in the distribution hierarchy chain, as

suggested by Nguyen (see col. 3, line 59 to col. 4, line 56).

As per claim 2, Hoyle discloses a set of repositories or sites for customizing the

download of software (ads banner) to match demographic specification of the requesting client

and providing a list including a version number for the client to select (e.g. col. 4, lines 64 to col.

6, line 5; col. 8, line 30 to col. 9, line 10; Fig. 3-5). Nguyen teaches a intermediate repositories

replicating the set of files from the central repositories (re claim 1).   But neither Hoyle nor

Nguyen explicitly discloses that a mid-level repository in the sequence of repositories which

includes a second subset of files of the product with a version update or nation-specific files.

The fact of providing demographic and client specified requirements in retrieving software so

that such software comes from the correct provider was a known-concept at the time of the

invention. In view of such concept and the teachings by Hoyle to use more than one sites to

download the correctly specified ad banners, it would have been obvious for one of ordinary skill

in the art at the time the invention was made to use additional sites or repositories as suggested

by Nguyen (series of site server-associated repositories – Fig. 9) as an intermediate step for

retrieving demographic specific ads banner (or version and nation-specific files) as suggested

by Hoyle based on the coordination from a central distribution institution/server (top-level

repository) in the sequence of repositories scheme by Nguyen, wherein such intermediate (mid-

level) repositories would store the demography-specific software as suggested by Hoyle. One of

ordinary skill in the art would be motivated to do this to optimize storage resources for persisting

data in repositories sequence as taught by Nguyen and thereby make such repositories replicating

scheme more diversified or specialized based on demographic or locale specificity to enable the

demography customized update process as intended by Hoyle.

As per claim 4, Hoyle discloses the method of upgrading including further:

generating of an input list downloadable from a server repository (e.g. *updated blueprint*

– col. 13, lines 48-63; step *256* – Fig. 14);

generating a list of files present on the target client system and comparing of those lists

(e.g. *current blue print* - col. 20, lines 19-32);

comparing the list of downloadable files with the list of files present in the target system

(e.g. col. 9, lines 3-11; Fig. 13); and

downloading a plurality of files which are not yet present in the target system (e.g. col. 20, lines 26-42).

But Hoyle fails to specify that the downloadable input list is retrieved from a sequence of repositories. But in view of the combined teachings by Hoyle and Nguyen in addressing the use of a sequence of databases to improve the duplicate elimination and overhead resource imparting as set forth in claim 1, this limitation herein would have been obvious for the same rationale as set forth therein.

As per claim 5, Hoyle does not specify a total list being a merge of input lists from each repository with a priority of more local files; but discloses a version differential matching of input lists, i.e. *current blueprint* versus *downloaded blueprint* (e.g. col. 20, lines 19-32) with a priority of local files (e.g. step *242* - Fig. 13). But Nguyen, in the method of customizing of software install using multiple layers of Database management (e.g. Fig. 1) as mentioned above, discloses the merge of master engineering group database with isolated databases of more specific releases to yield a preinstall database for final download and to BOM-based installation of files at target machines(e.g. *PRISM*, col. 12, line 54 to col. 13, line 11; col. 16, lines 9-23). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the use of multiple server database and file differential matching as taught by Hoyle (e.g. col. 16, lines 37-52; Fig. 13) so to include a merging process applied on software list or input lists, via accessing a hierarchy of databases, or repositories, with priority to match local file at the target machine as suggested by Nguyen. One of ordinary skill in the art would be motivated to do so because using database to merge files would ensure the non-duplication of unwanted data so well-known in database management processes; and also would alleviate

systematic reconstruction of input files each time a specific built is requested in the course of

generating of a final set of to-download components, as well as obviate burden in storage and

overhead as suggested by Nguyen (e.g. col. 5, lines 39-47; col. 6, lines 38-51)

As per claim 6, Hoyle does not explicitly disclose a look-aside procedure to access in a

neighbor system making it easier for integrating the files in the target system but discloses

directing to the available sites suitable to provide the appropriate component files based on

specification (e.g. Fig. 7, 11) to alleviate unnecessary search time to get to the correct remote

repositories or upgrade provider. The look-aside procedure is implied therein because the

technique of pointing to a non-local environment to get files into the target system is thus

equivalent to the technique as to look-aside for a system that is not part of the client system, like

a link to a site. Official notice is taken that a search being performed in a network designed so to

reach for the nearest node or point first in the scheme was a well-known concept in the search

algorithm at the time the invention was made. Based on this rationale, it would have been

obvious for one of ordinary skill in the art at the time the invention was made to make sure that

the pointing to a external sites as suggested by Hoyle be such that the nearest system be located

first as in a look-aside paradigm, like a neighboring system, because this would facilitate the

retrieval of files as intended for the upgrade and resources are averted for not having to extend to

far reaches to get to repositories for needed files.

As per claim 7, Hoyle discloses a system for maintaining software products, comprising:

one central software maintenance site; a network and a plurality of client computer

systems decentralized relative to at least one central software (e.g. *ADM Server, Ad servers* –

Fig. 3) maintenance site wherein the client systems are connected with said maintenance site via a network;

a set of repositories to provide product information for a product for making the product information available for said client systems (*database 44, Ad Servers 50* – Fig. 3; col. 8, lines 47-52; col. 16, lines 37-52; Fig. 13; col. 14, lines 17-26);

wherein a given client computer system performs a software maintenance action for the product by downloading data required for said software maintenance action (e.g. Fig 1-4, 8, 13).

But Hoyle does not disclose a sequence of repositories including a top-level repository for storing a complete set of files for the product and local-level repository for storing a first subset of files, such subset being specific for a given client system. But these limitations have been addressed in claim 1 above.

As per claim 8, Hoyle does not disclose a sequence of repositories hierarchically arranged but Nguyen discloses a system of hierarchically arranged databases of component files (e.g. Fig. 1, Fig. 7B, 9) to be merged into a final pre-install repository of files. This limitation would have been obvious using the same rationale and motivation set forth in claim 1 above by combining the teachings by Hoyle (e.g. *Ad Servers 50* – Fig. 3; col. 8, lines 47-52; col. 20, lines 47-66; col. 5, lines 26-34; col. 8, lines 55-63; col. 16, lines 9-23) to the hierarchy of databases as suggested by Nguyen.

As per claim 9, this claim corresponds to claim 2, hence is rejected using the same grounds of rejection as set forth therein.

As per claim 10, this claim corresponds to claim 6, hence is rejected using the same grounds of rejection as set forth therein.

As per claim 11, only Nguyen discloses replication databases for publishing purposes (col. 12, lines 16-23). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the local storage of banners as suggested by Hoyle to implement replication databases, i.e. shadow repositories, as suggested by Nguyen to help recording of backup data for publishing and information divulging purposes or maintaining of backup/legacy of advertising software material.

As per claim 12, this claim is the computer readable medium version of method claim 1, hence is rejected using the corresponding rejection as set forth therein.

As per claim 13, this claim is the computer readable medium version of method claim 2, hence is rejected using the corresponding rejection as set forth therein.

As per claim 14, this is the computer program product version of claim 4 for which Hoyle discloses instructions for performing maintenance action for an upgrade of a program on one target, such action including instructions:

generating of an input list downloadable from a server repository (e.g. *updated blueprint* – col. 13, lines 48-63; step *256* – Fig. 14);

generating a list of files present on the target client system and comparing of those lists (e.g. *current blue print* - col. 20, lines 19-32);

comparing the list of downloadable files with the list of files present in the target system (e.g. col. 9, lines 3-11; Fig. 13); and

downloading a plurality of files which are not yet present in the target system (e.g. col. 20, lines 26-42).

But Hoyle fails to specify that the downloadable input list is retrieved from a sequence of

repositories. But in view of the combined teachings by Hoyle and Nguyen in addressing the use

of a sequence of databases to improve the duplicate elimination and overhead resource imparting

as set forth in claim 1, this limitation herein would have been obvious for the same rationale as

set forth therein.

As per claims 15-16, these claims are the computer program product versions of method

claims 5 and 6, respectively, hence are rejected using the corresponding rejection as set forth

therein.

5.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoyle, USPN:

6,141,010, and Nguyen et al., USPN: 6,202,070, as applied to claim 2, and further in view of

Okanoue, USPN: 5,689,640 (hereinafter Okanoue).

As per claim 3, Hoyle does not disclose a fall back to an older program version by

inactivating the newer version and activating the older version but teaches download and

activation of downloaded components into the application (e.g. col. 14, lines 17-27). The

upgrade of a software component followed by its activation and determination as to whether such

activation is successful is a well-known concept in software upgrade, as evidenced by Okanoue,

who discloses, in a network service to update files to a plurality of target nodes, a backup copy of

the original file reverted to being active if the downloaded update file fails of to activate

successfully (col. 1, line 55 to col. 2, line 4; *cutover/rollback* -- Fig. 8). It would have been

obvious for one of ordinary skill in the art at the time the invention was made to include the

rollback step as suggested by Okanoue to the activation process by Hoyle to use the downloaded

files because this would immediately and easily restore the failing system, should it encounters

problems in activating the upgrade software file, to its functional state without extraneous clean-up operations or costly operating system complications by reactivating the original backup copy with its inherent machine state.

Response to Arguments

6.   Applicant's arguments filed 12/15/2003 have been fully considered but they are not persuasive. The following are the reasons therefor.

For the 35 USC 103(a) rejections:

(A)   As per claim 1, Applicant has submitted that Nguyen only teaches downloading software components from the local database of a manufacturing site and that both Hoyle and Nguyen fail to teach "performing a software maintenance ... specific for a given client" (Appl. Rmrks, pg. 9, 3rd para ; pg. 10, 2nd para). Nguyen is brought in for teaching of repositories organized in a hierarchical order arrangement, following a sequence going from a central master database to a more localized database at the manufacturing site. Hoyle already suggests the idea of downloading such that it operates from a set of more than one repositories and the use of sites to accommodate software for a user's specification (*ADM Server, Ad servers* – Fig. 3, 7). Nguyen's teaching of hierarchy of repositories going from the most global to a more specialized is used for extending Hoyle's suggestion in providing resources repositories that fulfill specific target machine environment. Thus, the rejection points out how the propagation of files storage from high level/low level repositories arrangement by Nguyen can be combined to enhance Hoyle's suggestion as to prevent duplicate data and to provide specialized sites for a given demographic specification. Further, Nguyen is also enhancing Hoyle's elimination of data duplicate by providing relational database standards. Hence, the rejection points out how

Hoyle's use of specialized sites for accommodating user's specification can be enhanced by

Nguyen's implementation of more global repositories transferring data to more local repositories

in a more hierarchical and sequential manner. And the motivation is to allow more specificity of

data storage, elimination of unwanted duplicate with improved storage efficiency.

(B)   Applicant has argued that Nguyen teaches away because Nguyen teaches elimination of

duplicates (Appl. Rmrks, pg. 11, 3rd para, last para). Nguyen is used to enhance Hoyle with the

idea of providing a some sequential persistent storage (DBM) order by which master set of files

from the high level repositories via a lower level repositories are transmitted to the target client.

Data duplica can be avoided by the use of database functions, but replication of database is

needed to save extraneous transmission burden (see Nguyen col. 3-4). Hence, the use of

repositories (DBMs) as disclosed by Nguyen denotes the purpose to avoid the carrying over of

unwanted duplicate data and further to alleviate resources usage by using alternate way of

replicating a whole database; and such use of database to eliminate data duplicate data is not to

be confounded with replicating of repositories for saving storage and transmission resources.

And the rejection has pointed out that such sequence of repositories has some advantages as to

effect resource efficiency in achieving specialized storage of data from more global storage to

more specific storage destined for the target machine installation as well as address the fact that

the lowest level of repositories has been made to fulfill target machine-specific download

requirement.

(C)   As for Applicant's remark on Hoyle's not teaching a look-aside procedure (Appl. Rmrks,

pg. 12, middle para), a very well-known concept has been introduced in the rejection. The

argument is hence moot.

(D)   As for the rest of the claims, 3, 10-11, the arguments from above being addressed, the
current grounds of rejection are such that those claims still stand rejected.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this
Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).
Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within TWO
MONTHS of the mailing date of this final action and the advisory action is not mailed until after
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,
however, will the statutory period for reply expire later than SIX MONTHS from the date of this
final action.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Tuan A Vu whose telephone number is (703)305-7207. The
examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Kakali Chaki can be reached on (703)305-9662.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for formal communications intended for entry)

or: (703) 746-8734 (for informal or draft communications, please consult Examiner

before using this number)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington. VA. , 22202. 4th Floor(Receptionist).

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VAT
February 13, 2004

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